OPTIONAL INFORMATION	
Name of School:	Date of Inspection:
Vocational Program/Course/Room:	Signature of Inspector:

WELDING AND CUTTING WITH OXYGEN-FUEL GAS

SELF INSPECTION CHECKLIST

Guidelines: This checklist covers some of the regulations issued by the U.S. Department of Labor - OSHA under the General Industry standards 29 CFR 1910.253 and the Construction standards 29 CFR 1926.350. All of these regulations were adopted by reference. It also covers some regulations from the New Jersey State Fire Prevention Code included as part of N.J.A.C. 5:18-3.20. It applies to operations involving oxygen-fuel gas welding and cutting. **This checklist must be used in conjunction with the checklist "Welding, Cutting and Brazing - General Requirements."** Questions marked with the symbol (☞) may require the help of an outside expert. Any question marked with the symbol (☹) indicates a history of previous violations in vocational schools.

This checklist does not cover the extensive regulations dealing with manifolding of cylinders, service piping systems, pressure relief devices, piping protective equipment and acetylene generators. Consult the OSHA regulations in 29 CFR 1910.253 and N.J.A.C. 5:18-3.20(g), (h) and (i) for further details.

	General Requirements	Please Circle
1.	Is acetylene generated, piped or used at pressures no greater than 15 psig or 30 psia? [29 CFR 1910.253(a)(2) and N.J.A.C. 5:18-3.20(e)12]	Y N N/A DK

Comments/Corrective Action

2.	Is all welding apparatus such as torches, regulators, pressure reducing valves, acetylene generators and manifolds purchased from reputable welding dealers who have indicated the equipment is suitable for the intended purpose? [29 CFR 1910.253(a)(3) and N.J.A.C. 5:18-3.20(c)1 and (e)1]	Y	N	N/A	DK
3.	Are all teachers/students trained and judged competent in the use of welding apparatus? [29 CFR 1910.253(a)(4), 1926.350(d) and N.J.A.C. 5:18-3.20(c)2]	Y	N	N/A	DK
4.	Are rules and instructions covering the operation and maintenance of oxygen or fuel-gas supply equipment readily available? [29 CFR 1910.253(a)(4)]	Y	N	N/A	DK

Cylinders and Containers

5.	Are all compressed gas cylinders legibly marked on their shoulders by means of stenciling, stamping or permanent labeling with the chemical or trade name of the gas? [29 CFR 1910.253(b)(1)(ii)]	Y	N	N/A	DK
6.	Are oxygen and acetylene cylinders kept away from radiators and other sources of heat? [29 CFR 1910.253(b)(2)(i) and N.J.A.C. 5:18-3.20(e)13]	Y	N	N/A	DK
7.	Inside of buildings, are cylinders stored in well protected, well ventilated, dry locations at least 20 feet from highly combustible material such as oil? [29 CFR 1910.253(b)(2)(ii) and N.J.A.C. 5:18-3.20(e)2]	Y	N	N/A	DK

Comments/Corrective Action

8.☹	Are assigned cylinder storage spaces designated to locate cylinders where they will not be knocked over, damaged by passing or falling objects, or subjected to tampering by unauthorized people? [29 CFR 1910.253(b)(2)(ii) and N.J.A.C. 5:18-3.20(e)2]	Y	N	N/A	DK
9.	Do empty cylinders have the valves closed? [29 CFR 1910.253(b)(2)(iii) & (b)(5)(ii)(H), 1926.350(a)(8) and N.J.A.C. 5:18-3.20(e)8]	Y	N	N/A	DK
10.	Are valve protection caps always in place on cylinders that are not in use? [29 CFR 1910.253(b)(2)(iv), 1926.350(a)(1) and N.J.A.C. 5:18-3.20(e)6]	Y	N	N/A	DK
11.	Is storage of fuel gas cylinders inside a building, except for those actually used or attached and ready to use, limited to a total gas capacity of 2,000 cubic feet or 300 pounds of liquified petroleum gas? [29 CFR 1910.253(b)(3) and N.J.A.C. 5:18-3.20(e)2]	Y	N	N/A	DK
12.	Is a separate specially constructed room or compartment provided for storage of cylinders in excess of 2,000 cubic feet total gas capacity or 300 pounds of liquified petroleum gas? [29 CFR 1910.253(b)(3)(i) and N.J.A.C. 5:18-3.20(e)2]	Y	N	N/A	DK
13.☹	Are oxygen cylinders in storage separated from fuel-gas cylinders or combustible materials (especially oil or grease) a minimum distance of 20 feet or by a non-combustible barrier at least 5 feet high having a fire resistance rating of at least one-half hour? [29 CFR 1910.253(b)(4)(iii) and N.J.A.C. 5:18-3.20(e)2]	Y	N	N/A	DK

Comments/Corrective Action

14.	Are cylinders, cylinder valves, couplings, regulators, hoses and apparatus kept free from oily and greasy substances? [29 CFR 1910.253(b)(5)(i), 1926.350(i) and N.J.A.C. 5:18-3.20(e)11]	Y	N	N/A	DK
15.	Are students/employees required to handle oxygen cylinders with oil and grease-free hands/gloves? [29 CFR 1910.253(b)(5)(i), 1926.350(i) and N.J.A.C. 5:18-3.20(e)11]	Y	N	N/A	DK
16.	Is care taken to ensure cylinders are not dropped, struck, handled roughly or permitted to strike each other violently? [29 CFR 1910.253(b)(5)(ii)(B), (b)(5)(ii)(O) & (b)(5)(iii)(B); and 1926.350(a)(3)] Note: Cylinders may be moved by tilting and rolling them on their bottom edges.	Y	N	N/A	DK
17.	Is there a prohibition against using valve-protection caps for lifting the cylinder from one vertical position to another? [29 CFR 1910.253(b)(5)(ii)(C) and 1926.350(a)(5)]	Y	N	N/A	DK
18.	Unless the cylinders are secured on a special truck, are regulators removed and valve-protection caps installed before cylinders are moved? [29 CFR 1910.253(b)(5)(ii)(D) and 1926.350(a)(6)]	Y	N	N/A	DK
19.	Do cylinders not having fixed hand wheels have keys, handles, or nonadjustable wrenches on the valve stems while the cylinders are in service? [29 CFR 1910.253(b)(5)(ii)(E) and 1926.350(d)(2)]	Y	N	N/A	DK

Comments/Corrective Action

20.	Are cylinder valves closed when work is finished and before moving cylinders? [29 CFR 1910.253(b)(5)(ii)(F) & (b)(5)(ii)(G), 1926.350(a)(8) and N.J.A.C. 5:18-3.20(e)6 & 8]	Y	N	N/A	DK
21.	Are cylinders kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flames will not reach them or alternatively, are fire-resistant shields provided? [29 CFR 1910.253(b)(5)(ii)(I), 1926.350(b)(1) and N.J.A.C. 5:18-3.20(e)13]	Y	N	N/A	DK
22.	Are cylinders placed where they can not become part of an electrical circuit? [29 CFR 1910.253(b)(5)(ii)(J) and 1926.350(b)(2)]	Y	N	N/A	DK
23.	Is there a prohibition against use of cylinders as rollers or supports? [29 CFR 1910.253(b)(5)(ii)(K) and 1926.350(c)(1)]	Y	N	N/A	DK
24.	When cylinders are hoisted, are they secured on a cradle, slingboard or pallet? [29 CFR 1926.350(a)(2)] Note: Cylinders may not be hoisted or transported by means of magnets or choker slings.	Y	N	N/A	DK
25.	Is there a prohibition against using a hammer or wrench to open cylinder valves? [29 CFR 1910.253(b)(5)(ii)(Q)] Note: If valves cannot be opened by hand, the supplier must be notified.	Y	N	N/A	DK
26.	Rather than attempting to repair a cylinder, is there a policy if trouble develops to report the problem promptly to the supplier? [29 CFR 1910.253(b)(5)(ii)(R)(1)]	Y	N	N/A	DK

Comments/Corrective Action

27.	Are fuel gas cylinders placed with the valve end up whenever they are in use? [29 CFR 1910.253(b)(5)(iii)(A), 1926.350(b)(3) and N.J.A.C. 5:18-3.20(e)4]	Y	N	N/A	DK
28.	Before connecting a regulator to a cylinder valve, is it required that the valve be opened slightly and closed immediately? [29 CFR 1910.253(b)(5)(ii)(P) & (b)(5)(iii)(C) and 1926.350(d)(1)] Note: The valve shall be opened while standing to one side of the outlet; never in front of it. Never crack the fuel gas or oxygen cylinder valve near other welding work or near sparks, flames, or other possible sources of ignition and combustion.	Y	N	N/A	DK
29.	Before a regulator is removed, is it required that the cylinder valve be closed and the gas released from the regulator? [29 CFR 1910.253(b)(5)(iii)(D), 1926.350(d)(4) and N.J.A.C. 5:18-3.20(e)9]	Y	N	N/A	DK
30.	Are cylinders for oxygen provided with a pressure regulating device intended for use with oxygen, and so marked? [N.J.A.C. 5:18-3.20(e)7]	Y	N	N/A	DK
31.	For torches or other devices equipped with shutoff valves, is the fuel gas from cylinders only used through a suitable regulator to reduce the pressure? [29 CFR 1926.350(d)(3) and N.J.A.C. 5:18-3.20(e)9]	Y	N	N/A	DK
32.	Are pressure adjusting screws on regulators fully released before the regulator is attached to a cylinder and the cylinder valve opened? [N.J.A.C. 5:18-3.20(e)9]	Y	N	N/A	DK

Comments/Corrective Action

33.	If cylinders are found to have leaky valves or fittings which cannot be stopped by closing the valve or tightening the gland nut, are cylinders then immediately taken outside away from sources of ignition and slowly emptied? [29 CFR 1910.253(b)(5)(iii)(F) and 1926.350(d)(5)]	Y N N/A DK
34.	Is the tampering of safety devices prohibited? [29 CFR 1910.253(b)(5)(iii)(H)]	Y N N/A DK
35.	Are cylinder valves always opened slowly? [29 CFR 1910.253(b)(5)(iii)(J). 1926.350(d)(2) and N.J.A.C. 5:18-3.20(e)10]	Y N N/A DK
36.	Do students and teachers know not to open acetylene cylinder valves more than 1-1/2 turns of the cylinder, and preferably no more than 3/4 of a turn? [29 CFR 1910.253(b)(5)(iii)(K) and 1926.350(d)(2)]	Y N N/A DK
37.☹	Is flash-back protection provided by an approved device that will prevent flame from passing into the fuel-gas system? [29 CFR 1910.253(e)(3)(ii)(C)(3)]	Y N N/A DK
38.	When parallel lengths of oxygen and fuel gas hose are taped together for convenience or to prevent tangling, is no more than four inches of every 12 inches of hosed taped? [29 CFR 1910.253(e)(5)(ii) and 1926.350(f)(2)]	Y N N/A DK
39.	Are fuel gas hose and oxygen hose easily distinguished from each other? [29 CFR 1926.350(f)(1)]	Y N N/A DK
40.	Are all hoses inspected at the beginning of each day? [29 CFR 1926.350(f)(3)]	Y N N/A DK

Comments/Corrective Action

41.☹	Are leaking, defective, burned or worn hoses removed repaired or replaced? [29 CFR 1910.253(e)(5)(v) and 1926.350(f)(3)]	Y	N	N/A	DK
42.	Are hose couplings of the type that cannot be unlocked or disconnected by means of a straight pull without rotary motion? [29 CFR 1926.350(f)(5)]	Y	N	N/A	DK
43.	Are boxes used for the storage of gas hose ventilated? [29 CFR 1926.350(f)(6)]	Y	N	N/A	DK
44.	Are hoses, cables, and other equipment kept clear of passageways, ladders and stairs? [29 CFR 1926.350(f)(7)]	Y	N	N/A	DK
45.	Are clogged torch tip openings cleaned with suitable cleaning wires, drills, or other devices designed for such purpose? [29 CFR 1926.350(g)(1)]	Y	N	N/A	DK
46.	Are torches inspected at the beginning of each day for leaking shutoff valves, hose couplings, and tip connections? [29 CFR 1926.350(g)(2)]	Y	N	N/A	DK
47.	Are defective torches not used? [29 CFR 1926.350(g)(2)]	Y	N	N/A	DK
48.	Are torches lighted by friction lighters or other approved devices, and not be matches or from hot work? [29 CFR 1926.350(g)(3)]	Y	N	N/A	DK
49.	Are regulators, including gauges only repaired by skilled mechanics who have had proper instruction? [29 CFR 1910.253(e)(6)(ii)]	Y	N	N/A	DK

Comments/Corrective Action

50.	Are gauges on oxygen regulators marked "USE NO OIL"? [29 CFR 1910.253(e)(6)(iii)]	Y N N/A DK
51.	Are union nuts and connections on regulators inspected before use to detect faulty seats which may cause leakage of gas when the regulators are attached to the cylinder valves? [29 CFR 1910.253(e)(6)(iv)]	Y N N/A DK
52.	Are tests for leaks in any piping system or equipment made with an approved leak detection liquid and not with flames? [N.J.A.C. 5:18-3.20(e)16] Note: Regular commercial soaps may contain oils which may cause problems with oxygen leaks.	Y N N/A DK
53.	Are compressed gas cylinders secured in an upright position to prevent falling or being knocked over? [29 CFR 1926.350(a)(9) and N.J.A.C. 5:18-3.20(e)2] Note: A suitable cylinder truck, chain, or other steadying device must be used to keep cylinders form being knocked over.	Y N N/A DK

Comments/Corrective Action

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